



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2018-0535; FRL-9987-11-Region 9]

Clean Air Plans; 2008 8-Hour Ozone Nonattainment Area Requirements; San Joaquin Valley, California

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve portions of two state implementation plan (SIP) revisions submitted by the State of California to meet Clean Air Act (CAA or “the Act”) requirements for the 2008 8-hour ozone national ambient air quality standards (NAAQS or “standards”) in the San Joaquin Valley, California, ozone nonattainment area. First, the EPA is proposing to approve the portion of the “2016 Ozone Plan for the 2008 8-Hour Ozone Standard” (“2016 Ozone Plan”) that addresses the requirement for a base year emissions inventory. Second, the EPA is proposing to approve the portions of the “2018 Updates to the California State Implementation Plan” (“2018 SIP Update”) that address the requirements for a reasonable further progress (RFP) demonstration and motor vehicle emissions budgets (MVEBs) for the San Joaquin Valley for the 2008 ozone standards. Lastly, the EPA is proposing to conditionally approve portions of the 2018 SIP Update that address the requirement for contingency measures for failure to meet RFP milestones or to attain the NAAQS by the applicable attainment date. The proposed approval is conditional because it relies on commitments by the State air agency and regional air district to supplement the contingency

measure portion of the 2018 SIP Update with submission of an additional contingency measure within one year of the EPA's final conditional approval.

DATES: Written comments must arrive on or before **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R09-OAR-2018-0535 at <https://www.regulations.gov>. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Laura Lawrence, EPA Region IX, (415) 972-3407, lawrence.laura@epa.gov.

SUPPLEMENTAL INFORMATION: Throughout this document, “we,” “us” and “our” refer to the EPA.

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I. Regulatory Context

A. *Ozone Standards, Area Designations and SIPs*

Ground-level ozone pollution is formed from the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) in the presence of sunlight.¹ These two pollutants, referred to as ozone precursors, are emitted by many types of sources, including on-and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints.

Scientific evidence indicates that adverse public health effects occur following exposure to elevated levels of ozone, particularly in children and adults with lung disease. Breathing air

¹ The State of California typically refers to reactive organic gases (ROG) in its ozone-related submissions since VOC in general can include both reactive and unreactive gases. However, since ROG and VOC inventories pertain to common chemical species (e.g., benzene, xylene, etc.), we refer to this set of gases as VOC in this proposed rule.

containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma or other lung diseases.²

Under section 109 of the CAA, the EPA promulgates NAAQS for pervasive air pollutants, such as ozone. The EPA has previously promulgated NAAQS for ozone in 1979 and 1997.³ In 2008, the EPA revised and further strengthened the ozone NAAQS by setting the acceptable level of ozone in the ambient air at 0.075 parts per million (ppm) averaged over an 8-hour period.⁴ Although the EPA further tightened the 8-hour ozone NAAQS to 0.070 ppm in 2015, this action relates to the requirements for the 2008 ozone NAAQS.⁵ The State of California and the EPA will address the 2015 ozone NAAQS in later actions.

Following promulgation of a new or revised NAAQS, the EPA is required under CAA section 107(d) to designate areas throughout the country as attaining or not attaining the NAAQS. The EPA classifies ozone nonattainment areas under CAA section 181 according to the severity of the ozone pollution problem, with classifications ranging from Marginal to Extreme. State planning and emissions control requirements for ozone are determined, in part, by the nonattainment area's classification. The EPA designated the San Joaquin Valley as nonattainment for the 2008 ozone standards on May 21, 2012, and classified the area as Extreme.⁶

Under the CAA, after the EPA designates areas as nonattainment for a NAAQS, states with nonattainment areas are required to submit SIP revisions. For areas classified Moderate and

² See "Fact Sheet – 2008 Final Revisions to the National Ambient Air Quality Standards for Ozone" dated March 2008.

³ The ozone NAAQS promulgated in 1979 was 0.12 parts per million (ppm) averaged over a 1-hour period. See 44 FR 8202 (February 8, 1979). The ozone NAAQS promulgated in 1997 was 0.08 ppm averaged over an 8-hour period. See 62 FR 38856 (July 18, 1997).

⁴ See 73 FR 16436 (March 27, 2008).

⁵ Information on the 2015 ozone NAAQS is available at 80 FR 65292 (October 26, 2015).

⁶ See 77 FR 30088 (May 21, 2012).

above, these revisions must provide for, among other things, attainment of the NAAQS within certain prescribed periods that vary depending on the severity of nonattainment. Areas classified as Extreme must attain the NAAQS within 20 years of the effective date of the nonattainment designation.⁷

In California, the California Air Resources Board (CARB or “State”) is the state agency responsible for the adoption and submission to the EPA of California SIPs and SIP revisions, and it has broad authority to establish emissions standards and other requirements for state-wide sources of emissions. Under California law, local and regional air pollution control districts in California are responsible for the regulation of regional/local sources such as stationary sources, and are generally responsible for the development of regional air quality plans. In the San Joaquin Valley, the San Joaquin Valley Air Pollution Control District (SJVAPCD or “District”) develops and adopts air quality management plans to address CAA planning requirements applicable to that region. The District then submits such plans to CARB for adoption and submission to the EPA as revisions to the California SIP. Such revisions do not become part of the applicable SIP for federal purposes until approved by the EPA.⁸

B. The San Joaquin Valley Ozone Nonattainment Area

The San Joaquin Valley nonattainment area for the 2008 ozone standards consists of San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, and Kings counties, and the western portion of Kern County. The San Joaquin Valley nonattainment area stretches over 250 miles from north to south, averages a width of 80 miles, and encompasses over 23,000 square miles. It

⁷ See CAA section 181(a)(1), 40 CFR 51.1102 and 51.1103(a).

⁸ See 40 CFR 51.105. For the purposes of the CAA, the “applicable plan” is composed of any portions of the SIP that are approved by the EPA together with any provisions promulgated by the EPA as substitutes for portions of the SIP disapproved by the EPA. 40 CFR 52.02(b). Provisions promulgated by the EPA as SIP substitutes are referred to as federal implementation plans, or FIPs.

is partially enclosed by the Coast Mountain range to the west, the Tehachapi Mountains to the south, and the Sierra Nevada range to the east.⁹

The population of the San Joaquin Valley in 2015 was estimated to be nearly 4.2 million people and is projected to increase by 25.3 percent in 2030 to over 5.2 million people.¹⁰ Ambient 8-hour ozone concentrations in the San Joaquin Valley are above the level of the 2008 ozone standards. The maximum design value for the area based on certified data is 0.092 ppm for the 2015-2017 period, which was measured at the Parlier monitor (Air Quality System ID: 06-019-4001).¹¹

C. CAA and Regulatory Requirements for 2008 8-Hour Ozone Nonattainment Area SIPs

States must implement the 2008 ozone standards under Title 1, part D of the CAA, which includes sections 171-179B of subpart 1 (“Nonattainment Areas in General”) and sections 181-185 of subpart 2 (“Additional Provisions for Ozone Nonattainment Areas”). To assist states in developing effective plans to address ozone nonattainment problems, in 2015 the EPA issued a SIP Requirements Rule (SRR) for the 2008 ozone standards (“2008 Ozone SRR”) that addressed implementation of the 2008 standards, including attainment dates, requirements for emissions inventories, attainment and RFP demonstrations, as well as the transition from the 1997 ozone standards to the 2008 ozone standards and associated anti-backsliding requirements.¹² The 2008 Ozone SRR is codified at 40 CFR part 51, subpart AA. We discuss the CAA and regulatory requirements for the elements of 2008 ozone plans relevant to this proposal in more detail below.

⁹ For a precise definition of the boundaries of the San Joaquin Valley 2008 ozone nonattainment area, see 40 CFR 81.305.

¹⁰ The population estimates and projections include all of Kern County, not just the portion of Kern County within the jurisdiction of the SJVAPCD. See chapter 1 and table 1-1 of the District’s 2016 Ozone Plan.

¹¹ See Air Quality System (AQS) Design Value Report, 20180621_DVRpt_SJV_2008-8hrO3_2015-2017.pdf in the docket for this proposed action. The AQS is a database containing ambient air pollution data collected by the EPA and state, local, and tribal air pollution control agencies from over thousands of monitors.

¹² See 80 FR 12264, March 6, 2015.

The EPA's 2008 Ozone SRR was challenged, and on February 16, 2018, the U.S. Court of Appeals for the D.C. Circuit ("D.C. Circuit") published its decision in *South Coast Air Quality Management District v. EPA*¹³ ("*South Coast II*")¹⁴ vacating portions of the 2008 Ozone SRR. The only aspect of the *South Coast II* decision that affects this proposed action is the vacatur of the alternative baseline year for RFP plans. More specifically, the 2008 Ozone SRR required states to develop the baseline emissions inventory for RFP plans using the emissions for the most recent calendar year for which states submit a triennial inventory to the EPA under subpart A ("Air Emissions Reporting Requirements") of 40 CFR part 51, which was 2011. However, the 2008 Ozone SRR allowed states to use an alternative year, between 2008 and 2012, for the baseline emissions inventory provided that the state demonstrated why the alternative baseline year was appropriate. The baseline emissions inventory for the RFP demonstration for the 2016 Ozone Plan was based on an alternative year of 2012 rather than 2011. In the *South Coast II* decision, the D.C. Circuit vacated the provisions of the 2008 Ozone SRR that allowed states to use an alternative baseline year for demonstrating RFP.

II. Submissions from the State of California to Address 2008 Ozone Requirements in the San Joaquin Valley

A. Summary of Submissions

On August 24, 2016, in response to the EPA's designation of the area as nonattainment and classification of the area as Extreme for the 2008 ozone NAAQS, CARB submitted the 2016

¹³ *South Coast Air Quality Management District v. EPA*, 882 F.3d 1138 (D.C. Cir. 2018) ("*South Coast II*").

¹⁴ The term "*South Coast II*" is used in reference to the 2018 court decision to distinguish it from a decision published in 2006 also referred to as "*South Coast*." The earlier decision involved a challenge to the EPA's Phase 1 implementation rule for the 1997 ozone standard. *South Coast Air Quality Management Dist. v. EPA*, 472 F.3d 882 (D.C. Cir. 2006).

Ozone Plan to the EPA as a revision to the California SIP.¹⁵ Prior to submission to the EPA, CARB approved the 2016 Ozone Plan, which had previously been adopted by the District and forwarded to CARB for approval and submission to the EPA.

The 2016 Ozone Plan submission consists of documents originating from the District (e.g., the 2016 Ozone Plan with Appendices and the District Governing Board Resolution) and CARB (e.g., the CARB Staff Report and Appendices, and the CARB Resolution adopting the 2016 Ozone Plan and CARB Staff Report as a SIP revision).¹⁶ The 2016 Ozone Plan addresses the requirements for base year and projected future year emissions inventories, air quality modeling demonstrating attainment of the 2008 ozone NAAQS by the applicable attainment year, provisions demonstrating implementation of reasonably available control measures (RACM), provisions for advanced technology/clean fuels for boilers, provisions for transportation control strategies and measures, a demonstration of RFP, motor vehicle emissions budgets, and contingency measures for failure to make RFP or attain, among other requirements. On August 31, 2018, the EPA proposed approval of the attainment demonstration portion of the 2016 Ozone Plan and associated attainment year motor vehicle emission budgets, the RACM demonstration, provisions for advanced technology/clean fuels for boilers, and provisions for transportation control strategies and measures.¹⁷

¹⁵ See letter from Richard Corey, Executive Officer, CARB, to Alexis Strauss, Acting Regional Administrator, EPA Region IX, dated August 24, 2016.

¹⁶ See four enclosures to the August 24, 2016 letter from CARB to EPA Region 9: (I) District Submission, including letter from Sheraz Gill, Director of Strategies and Incentives for the District, to Richard Corey, Executive Officer, CARB, and five appendices titled: (1) ARB SIP Completeness Checklist, (2) 2016 Ozone Plan with Appendices, (3) Governing Board Resolution Adopting the 2016 Ozone Plan, (4) Governing Board Memo, and (5) Evidence of Public Hearing; (II) CARB Evidence of Public Notice and Transcript; (III) CARB Staff Report; (IV) CARB Resolution 16-8 adopting the 2016 Ozone Plan and CARB Staff Report.

¹⁷ 83 FR 44528 (August 31, 2018).

In response to the court's decision in *South Coast II* vacating the 2008 Ozone SRR with respect to the use of an alternate baseline year for demonstrating RFP, California developed the 2018 SIP Update, which includes an RFP demonstration for the San Joaquin Valley for the 2008 ozone NAAQS using the required 2011 baseline year. The 2018 SIP Update also includes updated motor vehicle emission budgets and a contingency measure for failure to meet an RFP milestone or attain the NAAQS by the applicable attainment date. CARB released a draft of the 2018 SIP Update for public review on September 21, 2018. On October 3, 2018, CARB requested that the EPA accept the draft 2018 SIP Update for parallel processing with respect to the portions of the 2018 SIP Update that apply to the San Joaquin Valley area.¹⁸ Under the EPA's parallel processing procedure, the EPA may propose action on a public draft version of a SIP revision but will take final action only after the state adopts and submits the final version to the EPA for approval.¹⁹ If there are no significant changes from the draft version of the SIP revision to the final version, the EPA may elect to take final action on the proposal. In this case, on October 25, 2018, CARB has adopted the 2018 SIP Update previously released for public review, without significant modifications, as a revision to the California SIP. The only change of note between the draft and final versions is a menu of specific contingency measure actions that the CARB Board included in the resolution (Resolution 18-50) adopting the 2018 SIP Update. CARB has not yet submitted the final version of the SIP revision to the EPA, and thus we are proposing action based on the draft version of the 2018 SIP Update submitted to us on October 3, 2018, and the contents of CARB Resolution 18-50.

¹⁸ Letter from Richard Corey, CARB Executive Officer, to Michael Stoker, EPA Region IX Regional Administrator, dated October 3, 2018.

¹⁹ See 40 CFR part 51, appendix V.

In addition to these submissions, CARB sent additional technical information in two technical supplements on October 17, 2018,²⁰ and October 19, 2018.²¹ Further, on October 30, 2018, CARB forwarded a letter of commitment to the EPA from the District dated October 18, 2018, in which the District commits to revise its architectural coatings rule to create an additional contingency measure that will be triggered if the area fails to meet RFP or to attain by the applicable attainment date.^{22, 23} In the October 30, 2018 letter, CARB commits to submit the revised District rule to the EPA as a SIP revision within 12 months of the final action on the 2016 Ozone Plan and relevant portions of the 2018 SIP Update.

B. Clean Air Act Procedural Requirements for Adoption and Submission of SIP Revisions

CAA sections 110(a)(1) and (2) and 110(l) require a state to provide reasonable public notice and opportunity for public hearing prior to the adoption and submission of a SIP or SIP revision. To meet these procedural requirements, every SIP submission should include evidence that the state provided adequate public notice and an opportunity for a public hearing consistent with the EPA's implementing regulations in 40 CFR 51.102.

The San Joaquin Valley District Board adopted the 2016 Ozone Plan on June 16, 2016, following a public hearing. CARB adopted the 2016 Ozone Plan as a revision to the California SIP on July 21, 2016, following a public hearing. Both the District and CARB have satisfied the applicable statutory and regulatory requirements for reasonable public notice and hearing prior to the adoption and submission of the 2016 Ozone Plan. Therefore, we find that the submission of

²⁰ Email from Sylvia Vanderspek, Chief, CARB Air Quality Planning Branch, to Anita Lee, Chief, EPA Region IX Air Planning Office, dated October 17, 2018.

²¹ Email from Sylvia Vanderspek, Chief, CARB Air Quality Planning Branch, to Anita Lee, Chief, EPA Region IX Air Planning Office, dated October 19, 2018.

²² Letter from Dr. Michael Benjamin, Chief, Air Quality Planning and Science Division, CARB, to Mike Stoker, EPA Region IX Regional Administrator, dated October 30, 2018.

²³ Letter from Sheraz Gill, SJVAPCD Deputy Air Pollution Control Officer, to Richard Corey, CARB Executive Officer, and to Michael Stoker, EPA Region IX Regional Administrator, dated October 18, 2018.

the 2016 Ozone Plan meets the procedural requirements for public notice and hearing in CAA sections 110(a) and 110(l) and 40 CFR 51.102.

CARB published the 2018 SIP Update for public review on September 21, 2018, and adopted the document as a revision to the California SIP following a public hearing on October 25, 2018. As noted above, CARB has not yet submitted the final version of the 2018 SIP Update to the EPA, but we expect to find that CARB has satisfied the applicable statutory and regulatory requirements for reasonable public notice and hearing prior to the adoption of the 2018 SIP Update. Therefore, once we receive the final version, we expect to conclude that the submission of the 2018 SIP Update also meets the procedural requirements for public notice and hearing in CAA sections 110(a) and 110(l) and 40 CFR 51.102.

III. Evaluation of the 2016 Ozone Plan and 2018 SIP Update

A. Emissions Inventories

1. Statutory and Regulatory Requirements

CAA section 172(c)(3) requires that each nonattainment plan SIP submission include a “comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in [the] area.” The accounting required by this section provides a “base year” inventory that serves as the starting point for attainment demonstration air quality modeling, for assessing RFP, and for determining the need for additional SIP control measures. EPA regulations require that the inventory year be consistent with the baseline year for the RFP

demonstration, which is the most recent calendar year for which a complete triennial inventory is required to be submitted to the EPA under the Air Emissions Reporting Requirements.²⁴

Future baseline emissions inventories must reflect the most recent population, employment, travel and congestion estimates for the area.²⁵ Future baseline emissions inventories are necessary to show the projected effectiveness of SIP control measures. Both the base year and future year inventories are necessary for photochemical modeling to demonstrate attainment.

The EPA has issued guidance on the development of base year and future year emissions inventories for ozone and other pollutants.²⁶ Emissions inventories for ozone must include emissions of VOC and NO_x and represent emissions for a typical ozone season weekday.²⁷ States should include documentation explaining how it calculated emissions data. In estimating mobile source emissions, states should use the latest emissions models and planning assumptions available at the time it develops the SIP submission.²⁸

2. Summary of the State's Submissions

The 2016 Ozone Plan includes a 2012 base year emissions inventory based on actual emissions, to meet the requirements of CAA sections 172(c)(3) and 182(a)(1). The 2018 SIP Update does not include a new base year emissions inventory with actual emissions; rather, for

²⁴ See 2008 Ozone SRR at 40 CFR 51.1115(a) and the Air Emissions Reporting Requirements at 40 CFR part 51 subpart A.

²⁵ See Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations, EPA-454/B-17-003, July 2017, chapter 5, Developing Projected Emissions Inventories, pages 113- 129.

²⁶ See "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations," ("EI Guidance"), EPA-454/B-17-002, May 2017. At the time the 2016 Ozone Plan was developed, the following EPA emissions inventory guidance applied: "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations" ("EI Guidance"), EPA-454-R-05-001, November 2005.

²⁷ 40 CFR 51.1115(a) and (c), and 40 CFR 51.1100(bb) and (cc).

²⁸ See 80 FR 12264, at 12290 (March 6, 2015).

purposes of updating the RFP demonstration, the transportation conformity motor vehicle emission budgets, and the contingency measure calculations, CARB used the 2012 base year inventory from the 2016 Ozone Plan to create new emissions inventory projections for the 2011 RFP baseline year and for RFP milestone years. These new projections are included in the 2018 SIP Update. CARB also submitted a “San Joaquin Valley Emission Projection Technical Clarification” to clarify how it calculated the projected inventories in this submission.²⁹ The EPA has evaluated the 2012 base year inventory from the 2016 Ozone Plan to determine whether it meets the requirements for a base year inventory in CAA sections 172(c)(3) and 182(a)(1), and the projected inventories included in the 2018 SIP Update to determine whether they are appropriate for use in the updated RFP demonstration and other purposes (e.g., establishing revised motor vehicle emissions budgets). A summary of these submissions, and the results of our evaluation, are discussed below.

a. 2016 Ozone Plan

The 2016 Ozone Plan includes a 2012 base year emissions inventory for the San Joaquin Valley nonattainment area, based on actual emissions, to fulfill the requirements in CAA sections 172(c)(3) and 182(a)(1). The inventory includes VOC and NO_x emissions, because these pollutants are precursors to ozone formation, across all source categories during an ozone season day as defined in 40 CFR 51.1100(cc). The 2016 Ozone Plan has identified the summer, defined as May through October, as the time when the highest concentration of ozone is formed.

²⁹ E-mail from Stephanie Huber, Manager, CARB Emission Inventory Development Section to Larry Biland, EPA Region IX Air Quality Analysis Office, dated October 17, 2018, transmitting “San Joaquin Valley Emission Projections Technical Clarification.”

A description of base year emissions inventory development can be found in the 2016 Ozone Plan, chapter 3.11 through 3.11.2. The complete emissions inventory and documentation are found in Appendix B (“Emissions Inventory”).

VOC and NO_x emissions are grouped into two general categories: stationary sources and mobile sources. Stationary sources are further divided into “point” and “area” sources. Point sources typically refer to permitted facilities that have one or more identified and fixed pieces of equipment and emissions points. Permitted facilities were required to report their actual emissions to the District by the facility operators through the calendar year 2012. Stationary area sources are many smaller point sources, and include sources that have internal combustion engines, and gasoline dispensing facilities (gas stations). These sources are not inventoried individually; their emissions are estimated as a group and reported as a single source category.

Area sources consist of widespread and numerous smaller emission sources, such as small permitted facilities and households.

The mobile sources category can be divided into two major subcategories: “on-road” and “off-road” mobile sources. On-road mobile sources include light-duty automobiles, light-, medium-, and heavy-duty trucks, and motorcycles. Off-road mobile sources include aircraft, locomotives, construction equipment, mobile equipment, and recreational vehicles.

The emissions inventories for the San Joaquin Valley 2008 ozone nonattainment area in the 2016 Ozone Plan were developed jointly by CARB and the District. Data were provided by CARB, the California Department of Transportation, the Department of Motor Vehicles, the Department of Pesticide regulation, the California Energy Commission and regional transportation agencies to develop mobile and area-wide source emission estimates. The emission estimates reflect reported emissions for point sources, whereas estimates for mobile and

area sources are based on projections obtained through use of emissions models and methodologies along with actual activity data for 2012 (e.g., vehicle miles traveled). The District utilizes different methodologies to estimate over sixty different types of individual stationary area sources. CARB and the District also reviewed the growth profiles for point and areawide source categories and updated them as necessary to ensure that the emission projections were based on data that reflect historical trends, current conditions, and recent economic and demographic forecasts.

CARB provided emission estimates for stationary nonagricultural diesel engines, agricultural irrigation pumps, laundering (dry cleaning), degreasing (solvents), oil and gas production, and gasoline dispensing facilities.

Area sources are categories such as consumer products, pesticides/fertilizers, fireplaces, farming operations, and other emissions which occur over a wide geographic area. Emissions for these categories were estimated by both CARB and the District using various models and methodologies.

CARB developed the emissions inventory for mobile sources, both on-road and off-road. CARB estimated on-road mobile sources emissions, which include passenger vehicles, buses, and trucks, using CARB's EMFAC2014 model.³⁰ CARB calculated the on-road emissions by applying EMFAC2014 emission factors to the transportation activity data provided by the local San Joaquin Valley transportation agencies from their 2014 adopted Regional Transportation Plan. CARB estimated off-road mobile sources emissions using either newer category-specific models or, where a new model was not available, the OFFROAD2007 model.

³⁰ The EPA approved EMFAC2014 for use in SIP development and transportation conformity in California at 80 FR 77337 (December 14, 2015). EMFAC2014 is the most recently-approved model for California for these uses.

Table 1 provides a summary, by major source categories, for the 2012 base year VOC and NO_x emissions inventories in tons per day (tpd) for the San Joaquin Valley 2008 ozone nonattainment area, as presented in the 2016 Ozone Plan. In the 2012 inventory presented in the 2016 Ozone Plan, mobile sources account for approximately 85 percent of NO_x emissions and 32 percent of VOC emissions in the San Joaquin Valley, and total area sources account for approximately 1.3 percent of NO_x emissions and 50 percent of VOC emissions.

Table 1. Base Year Summer Average VOC and NO_x Emissions in the 2016 Ozone Plan (in tons per day)

Source Category	2012	
	VOC (tpd)	NO _x (tpd)
Stationary Sources	85.3	42.4
Area Sources	147.0	4.7
Mobile Sources	105.0	292.4
San Joaquin Valley Total	337.3	339.6

Source: Tables B-1 and B-2 of the 2016 Ozone Plan.

b. 2018 SIP Update

In response to the *South Coast II* decision, CARB developed the 2018 SIP Update, which updates the RFP demonstration and related SIP elements to rely on a 2011 baseline year. The 2018 SIP Update does not include a new base year emissions inventory with actual emissions for the San Joaquin Valley 2008 ozone nonattainment area to meet the requirements of 172(c)(3) and 182(a)(1). Rather, for purposes of the RFP demonstration, CARB used the 2012 base year inventory from the 2016 Ozone Plan to develop new emissions inventory projections for the 2011 RFP baseline year and for all RFP milestone years. These inventories form the basis of the RFP demonstration calculations, the motor vehicle emissions budgets, and the contingency measure calculations for the San Joaquin Valley 2008 ozone nonattainment area, which will be discussed in sections III.B, III.C, and III.D below. In this section, we describe and evaluate these updated inventory projections to determine whether they are appropriate for use in these SIP elements.

As in the 2016 Ozone Plan, the projected inventories in the 2018 SIP Update include NO_x and VOC emissions and are for the summer season defined as May through October. Details on the emissions inventory, documentation, and a complete listing of emissions can be found on pages 51 through 54 and Appendix A, pages A-27 through A-30 of the 2018 SIP Update. Additional emissions inventory information can be found in the “San Joaquin Valley Emission Projections Technical Clarification” document which explains the changes made in the methodologies used in emissions inventory development. This document is contained in the docket for this rulemaking.

The State and District developed point and stationary source VOC and NO_x emissions for the 2011 inventory from actual emissions, generally using the same methodologies used in the 2016 Ozone Plan. Stationary aggregate emissions and area source emissions for 2011 were backcast, and for future years were forecast, from the 2012 base year inventory. Mobile sources used the same model, EMFAC2014, as in the 2016 Ozone Plan. While the 2016 Ozone Plan used California Emissions Projections and Analysis Model (CEPAM) version 1.03 to project future year emissions, the 2018 SIP Update used CEPAM version 1.05. CEPAM 1.05 includes updates to methodologies for stationary and area sources in the following source categories: pesticides, cleaning and surface coatings, waste disposal, composting facilities, glass manufacturing, services and commercial / residential fuel combustion – space heating, and petroleum marketing. CARB used current information to update emissions from locomotives. For the rest of the source categories in the emissions inventory, CARB used the same methodologies as in the 2016 Ozone Plan.

Tables 2 and 3 provide summaries, by major source categories, for VOC and NO_x emissions inventories for RFP baseline and milestone years. These emissions are for the San

Joaquin Valley 2008 ozone nonattainment area as presented in the Appendix A, pages A-27 through A-30 of the 2018 SIP Update.

Table 2. Summer Average VOC emissions in the 2018 SIP Update (in tons per day)

VOC (tpd)								
Source Category	2011	2017	2020	2023	2026	2029	2031	2032
Stationary Sources	83.36	89.55	91.70	94.54	97.86	101.58	104.22	105.62
Area Sources	180.76	148.50	149.80	151.14	152.56	154.00	154.98	155.49
Mobile Sources	114.56	72.52	62.27	54.55	49.88	46.31	43.72	42.87
San Joaquin Valley Total	378.68	310.58	303.77	300.22	300.30	301.89	302.93	303.98

Source: Pages A-27 and A-28 of the 2018 SIP Update.

Table 3. Summer Average NO_x Emissions in the 2018 SIP Update (in tons per day)

NO _x (tpd)								
Source Category	2011	2017	2020	2023	2026	2029	2031	2032
Stationary Sources	43.05	30.72	29.95	29.29	28.59	28.10	27.85	27.86
Area Sources	6.84	4.68	4.59	4.43	4.29	4.21	4.15	4.11
Mobile Sources	325.70	208.01	173.40	124.73	110.12	98.81	93.04	90.92
San Joaquin Valley Total	375.58	238.41	207.94	158.44	143.01	131.12	125.03	122.89

Source: Pages A-29 and A-30 of the 2018 SIP Update.

With respect to future year projections, the EPA will approve a state plan that takes emissions reduction credit for a control measure only where the EPA has approved the measure as part of the SIP. Thus, to take credit for the emissions reductions from newly-adopted or amended District rules for stationary sources, the related rules must be approved by the EPA into the SIP. Table 1 in the technical support document (TSD) accompanying this rulemaking shows District rules that were incorporated in the future year inventories, along with information on EPA approval of these rules. In recent years, the EPA has taken action to approve CARB mobile source regulations into the California SIP.³¹ Inventories in the 2018 SIP Update include these controls in their projections.

³¹ See 81 FR 39424 (June 16, 2016), 82 FR 14446 (March 21, 2017), and 83 FR 23232 (May 18, 2018).

3. The EPA's Review of the State's Submission

We have reviewed the base year emissions inventory in the 2016 Ozone Plan and the RFP baseline and milestone year inventories in the 2018 SIP Update for the San Joaquin Valley 2008 ozone nonattainment area for consistency with CAA requirements and EPA guidance. First, as required by EPA regulation, we note that the inventories include estimates for VOC and NO_x for a typical ozone season weekday, and that CARB has provided adequate documentation explaining how the emissions are calculated. Second, we find that the 2012 base year emissions inventory in the 2016 Ozone Plan reflects appropriate emissions models and methodologies, and, therefore, represents a comprehensive, accurate, and current inventory of actual emissions during that year in the San Joaquin Valley nonattainment area. Further, we find that CARB and the District have used the most recent planning and activity assumptions, emissions models, and methodologies in developing the RFP baseline and milestone year emissions inventories in the 2018 SIP Update.

Therefore, the EPA is proposing to approve the 2012 emissions inventory as meeting the requirements for a base year inventory set forth in CAA section 182(a)(1) and 40 CFR 51.1115. Regarding the requirement in the 2008 Ozone SRR that the base year inventory be consistent with the baseline year for the RFP demonstration, we note that 2012 is the year of the base year inventory, while the RFP demonstration is based on a 2011 baseline year. However, as noted above, the 2011 emissions inventory is backcast from the 2012 base year inventory, and therefore is based on the same data. Therefore, we find that selection of 2012 as the base year for the emissions inventory is consistent with the 2011 baseline year for the RFP demonstration for this nonattainment area as required by 40 CFR 51.1115(a).

The 2018 SIP Update starts with 2011 as the baseline year and shows future baseline emissions inventories out to 2032. The EPA is proposing to find these inventories appropriate for

use in developing the RFP demonstration (section III.B below), motor vehicle emissions budgets (section III.C below), and the contingency measure element for the San Joaquin Valley for the 2008 ozone standards (section III.D below).³²

B. Rate of Progress Plan and Reasonable Further Progress Demonstration

1. Statutory and Regulatory Requirements

Requirements for RFP for ozone nonattainment areas are specified in CAA sections 172(c)(2), 182(b)(1), and 182(c)(2)(B). CAA section 172(c)(2) requires that plans for nonattainment areas provide for RFP, which is defined as such annual incremental reductions in emissions of the relevant air pollutant as are required under part D (“Plan Requirements for Nonattainment Areas”) or may reasonably be required by the EPA for the purpose of ensuring attainment of the applicable NAAQS by the applicable date. CAA section 182(b)(1) specifically requires that ozone nonattainment areas that are classified as Moderate or above demonstrate a 15 percent reduction in VOC between the years of 1990 and 1996. The EPA has typically referred to section 182(b)(1) as the Rate of Progress (ROP) requirement. For ozone nonattainment areas classified as Serious or higher, section 182(c)(2)(B) requires reductions averaged over each consecutive 3-year period, beginning 6 years after the baseline year until the attainment date, of at least 3 percent of baseline emissions per year. The provisions in CAA section 182(c)(2)(B)(ii) allow an amount less than 3 percent of such baseline emissions each year if the state demonstrates to the EPA that the plan includes all measures that can feasibly be implemented in the area in light of technological achievability.

³² We previously determined that the 2012 base year emission inventory and future year emissions inventories that are derived therefrom in the 2016 Ozone Plan provide an acceptable basis for the attainment demonstration and VMT offset demonstration in the 2016 Ozone Plan. See 83 FR 44528, at 44532 / column 1. (August 31, 2018).

In the 2008 Ozone SRR, the EPA provided that areas classified Moderate or higher will have met the ROP requirements of CAA section 182(b)(1) if the area has a fully approved 15 percent ROP plan for the 1-hour or 1997 8-hour ozone standards, provided the boundaries of the ozone nonattainment areas are the same.³³ For such areas, the EPA interprets the RFP requirements of CAA section 172(c)(2) to require areas classified as Moderate to provide a 15 percent emission reduction of ozone precursors within 6 years of the baseline year. Areas classified as Serious or higher must meet the RFP requirements of CAA section 182(c)(2)(B) by providing an 18 percent reduction of ozone precursors in the first 6-year period, and an average ozone precursor emission reduction of 3 percent per year for all remaining 3-year periods thereafter.³⁴ Under the CAA 172(c)(2) and CAA 182(c)(2)(B) RFP requirements, the state may substitute NO_x emissions reductions for VOC reductions.³⁵

Except as specifically provided in CAA section 182(b)(1)(C), emissions reductions from all SIP-approved, federally promulgated, or otherwise SIP-creditable measures that occur after the baseline year are creditable for purposes of demonstrating that the RFP targets are met. Because the EPA has determined that the passage of time has caused the effect of certain exclusions to be de minimis, the RFP demonstration is no longer required to calculate and specifically exclude reductions from measures related to motor vehicle exhaust or evaporative emissions promulgated by January 1, 1990; regulations concerning Reid vapor pressure

³³ See 70 FR 12264 at 12271 (March 6, 2015). In our August 31, 2018 proposed action on certain portions of the 2016 Ozone Plan, we proposed to approve the ROP demonstration as meeting the requirements of CAA section 182(b)(1) based on the previous approval by the EPA of the 15 percent ROP demonstration for the San Joaquin Valley for the 1-hour ozone NAAQS. See 83 FR 44528, at 44539 (August 31, 2018). Therefore, we do not further address the ROP demonstration requirement in this document.

³⁴ Id.

³⁵ See 40 CFR 51.1110(a)(2)(i)(C) and 40 CFR 51.1110(a)(2)(ii)(B); and 70 FR 12264 at 12271 (March 6, 2015).

promulgated by November 15, 1990; measures to correct previous RACT requirements; and, measures required to correct previous inspection and maintenance (I/M) programs.³⁶

The 2008 Ozone SRR requires the RFP baseline year to be the most recent calendar year for which a complete triennial inventory was required to be submitted to the EPA. For the purposes of developing RFP demonstrations for the 2008 ozone standards, the applicable triennial inventory year is 2011. As discussed previously, the 2008 Ozone SRR provided states with the opportunity to use an alternative baseline year for RFP but that particular aspect of the 2008 Ozone SRR was vacated by the D.C. Circuit in the *South Coast II* decision.³⁷

2. Summary of the State's Submission

The 2018 SIP Update replaces the RFP portion of the 2016 Ozone Plan and includes updated emissions estimates for the baseline, milestone and attainment years, and an updated RFP demonstration relying on a 2011 baseline year.³⁸ The updated RFP demonstration is shown in table 4 below:

Table 4. Reasonable Further Progress Demonstration in the 2018 SIP Update

	VOC (tpd)						
	2011	2017	2020	2023	2026	2029	2031
Baseline VOC	378.7	310.6	303.8	300.2	300.3	301.9	302.9
Transportation Conformity Safety Margin	0	0	0	0	0	0	0
Baseline VOC + Safety Margin	378.7	310.6	303.8	300.2	300.3	301.9	302.9
Required % change since 2011 (VOC or NO_x)		18%	27%	36%	45%	54%	60%
Required tpd reductions since 2011		68.2	102.2	136.3	170.4	204.5	227.2
Target VOC Level		310.5	276.4	242.4	208.3	174.2	151.5
Apparent Shortfall (-)/ Surplus (+) in VOC		-0.1	-27.3	-57.9	-92.0	-127.7	-151.5
Apparent Shortfall (-)/ Surplus (+) in VOC, %		0%	-7.2%	-15.3%	-24.3%	-33.7%	-40.0%

³⁶ See 40 CFR 51.1110(a)(7).

³⁷ See 40 CFR 51.1110(b).

³⁸ See the Reasonable Further Progress demonstration, section VIII-B, beginning on page 52.

VOC Shortfall previously provided by NO_x Substitution, %		0%	0%	7.2%	15.3%	24.3%	33.7%
Actual VOC shortfall (-)/ surplus (+), %		0%	-7.2%	-8.1%	-9.0%	-9.4%	-6.3%
	NO_x (tpd)						
	2011	2017	2020	2023	2026	2029	2031
Baseline NO_x	375.6	238.4	207.9	158.4	143.0	131.1	125.0
Transportation Conformity Safety Margin	0.0	0.0	0.0	2.5	5.3	7.1	8.0
Baseline NO_x + Safety Margin	375.6	238.4	207.9	160.9	148.3	138.2	133.1
Change in NO_x since 2011, tpd		137.2	167.7	214.7	227.3	237.4	242.5
Change in NO_x since 2011, %		36.5%	44.6%	57.2%	60.5%	63.2%	64.6%
NO_x reductions used for VOC substitution through last milestone year, %		0%	0%	7.2%	15.3%	24.3%	33.7%
NO_x reductions since 2011 available for VOC substitution in this milestone year, %		36.5%	44.6%	49.9%	45.2%	38.9%	30.8%
NO_x reductions since 2011 used for VOC substitution in this milestone year, %		0%	7.2%	8.1%	9.0%	9.4%	6.3%
NO_x reductions since 2011 surplus after meeting VOC substitution needs in this milestone year, %		36.5%	37.4%	41.9%	36.2%	29.5%	24.6%
Total shortfall for RFP		0%	0%	0%	0%	0%	0%
RFP Met?		YES	YES	YES	YES	YES	YES

Source: Table VIII-2 of the 2018 SIP Update.

The updated RFP demonstration calculates future year VOC targets from the 2011 baseline, consistent with CAA 182(c)(2)(B)(i), which requires reductions of “at least 3 percent of baseline emissions each year.” The updated RFP demonstration in the 2018 SIP Update substitutes NO_x reductions for VOC reductions³⁹ beginning in milestone year 2020 to meet VOC emission targets. For the San Joaquin Valley nonattainment area, CARB concludes that the RFP demonstration meets the applicable requirements for each milestone year as well as the attainment year.

³⁹ NO_x substitution is permitted under EPA regulations. See 40 CFR 51.1110(a)(2)(i)(C) and 40 CFR 51.1110(a)(2)(ii)(B); and 70 FR 12264 at 12271 (March 6, 2015).

3. The EPA's Review of the State's Submission

As discussed in section III.A above, we are proposing to find that the baseline and RFP milestone year emissions inventories are acceptable for use in the RFP demonstration. We have reviewed the calculations in table VIII-2 of the 2018 SIP Update and presented in table 4 above, and find that the State has used an appropriate calculation method to demonstrate RFP. For these reasons, we have determined that the State has demonstrated RFP in each milestone year and the attainment year, consistent with applicable CAA requirements and EPA guidance. We therefore propose to approve the RFP demonstrations under sections 172(c)(2), 182(b)(1) and 182(c)(2)(B) of the CAA and 40 CFR 51.1110(a)(2)(ii).

C. Motor Vehicle Emissions Budgets for Transportation Conformity

1. Statutory and Regulatory Requirements

Section 176(c) of the CAA requires federal actions in nonattainment and maintenance areas to conform to the SIP's goals of eliminating or reducing the severity and number of violations of the NAAQS and achieving timely attainment of the standards. Conformity to the SIP's goals means that such actions will not: (1) cause or contribute to violations of a NAAQS, (2) worsen the severity of an existing violation, or (3) delay timely attainment of any NAAQS or any interim milestone.

Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the EPA's transportation conformity rule, codified at 40 CFR part 93, subpart A. Under this rule, MPOs in nonattainment and maintenance areas coordinate with state and local air quality and transportation agencies, the EPA, the FHWA, and the FTA to demonstrate that an area's regional transportation plans and transportation improvement programs conform to the applicable SIP. This demonstration is typically done by showing that estimated emissions from existing and planned highway and

transit systems are less than or equal to the motor vehicle emissions budgets (MVEBs or “budgets”) contained in all control strategy SIPs. Budgets are generally established for specific years and specific pollutants or precursors. Ozone plans should identify budgets for on-road emissions of ozone precursors (NO_x and VOC) in the area for each RFP milestone year and the attainment year, if the plan demonstrates attainment.⁴⁰

For budgets to be approvable, they must meet, at a minimum, the EPA's adequacy criteria (40 CFR 93.118(e)(4)). To meet these requirements, the budgets must be consistent with the attainment and RFP requirements and reflect all of the motor vehicle control measures contained in the attainment and RFP demonstrations.⁴¹

The EPA's process for determining adequacy of a budget consists of three basic steps: (1) providing public notification of a SIP submission; (2) providing the public the opportunity to comment on the budget during a public comment period; and, (3) making a finding of adequacy or inadequacy.⁴²

2. Summary of the State's Submission

The 2016 Ozone Plan included sub-regional (i.e., county-based) budgets for the 2018, 2021, 2024, 2027, and 2030 RFP milestone years, and the 2031 attainment year. In June 2017, the EPA found the budgets adequate for transportation conformity purposes,⁴³ and more recently, proposed approval of the 2031 budgets in our August 31, 2018 action on portions of the 2016 Ozone Plan. The budgets for 2018, 2021, 2024, 2027 and 2030 were derived from the 2012 RFP

⁴⁰ See 40 CFR 93.102(b)(2)(i).

⁴¹ See 40 CFR 93.118(e)(4)(iii), (iv) and (v). For more information on the transportation conformity requirements and applicable policies on MVEBs, please visit our transportation conformity web site at: <http://www.epa.gov/otaq/stateresources/transconf/index.htm>.

⁴² See 40 CFR 93.118(f)(2).

⁴³ 82 FR 29547 (June 29, 2017).

baseline year and the associated RFP milestone years. As such, the budgets are affected by the *South Coast II* decision vacating the alternative baseline year provision, and therefore, the EPA did not propose action on RFP budgets in our August 31, 2018 proposed rule. On October 3, 2018, CARB requested parallel processing of the 2018 SIP Update before its board's anticipated adoption of the plan on October 25, 2018. The 2018 SIP Update revises the RFP determination and identifies new sub-regional budgets for each county in the nonattainment area for VOC and NO_x for each updated RFP milestone year through 2030 and for the attainment year, 2031. The budgets in this 2018 SIP Update replace all of the budgets contained in the 2016 Ozone Plan.

The budgets in the 2018 SIP Update were calculated using updated vehicle miles traveled (VMT) estimates from the 2018 Regional Transportation Plans from the San Joaquin Valley Metropolitan Transportation Planning agencies and EMFAC2014, CARB's latest approved version of the EMFAC model for estimating emissions from on-road vehicles operating in California, and reflect average summer weekday emissions consistent with the RFP milestone years and the 2031 attainment year for the 2008 ozone NAAQS. The budgets also include a safety margin for some years and some counties. The conformity budgets for NO_x and VOC for each county in the nonattainment area are provided in table 5 below.

Table 5. Budgets in the 2018 SIP Update (in tons per day)

County	2020		2023		2026		2029		2031	
	VOC (tpd)	NO _x (tpd)	VOC (tpd)	NO _x (tpd)	VOC (tpd)	NO _x (tpd)	VOC (tpd)	NO _x (tpd)	VOC (tpd)	NO _x (tpd)
Fresno	6.7	3.9	5.5	14.1	4.9	13.2	4.5	12.4	4.2	12.1
Kern (SJV)	5.4	23.9	4.5	14.5	4.2	14.4	4.0	14.3	3.9	14.3
Kings	1.2	4.5	1.0	2.7	0.9	2.5	0.8	2.6	0.8	2.6
Madera	1.5	4.3	1.1	2.7	1.0	2.5	0.9	2.4	0.8	2.3
Merced	2.2	8.8	1.7	6.0	1.5	5.9	1.3	5.6	1.2	5.4
San Joaquin	4.7	11.2	3.9	7.4	3.5	7.0	3.1	6.6	2.8	6.3
Stanislaus	3.1	8.8	2.6	5.6	2.2	4.9	2.0	4.5	1.8	4.3
Tulare	3.0	7.6	2.4	4.6	2.1	4.0	1.8	3.7	1.7	3.5

Source: Tables VIII-4 through VIII-10 of the 2018 SIP Update.

3. The EPA's Review of the State's Submission

We have evaluated the submitted budgets in the 2018 SIP Update against our adequacy criteria in 40 CFR 93.118(e)(4) as part of our review of the budgets' approvability (see section III in the EPA's TSD for this proposal) and will complete the adequacy review concurrent with our final action on the ozone plan. The EPA is not required under its transportation conformity rule to find budgets adequate prior to proposing approval of them.⁴⁴

The EPA has previously determined that the budgets in 2016 Ozone Plan are adequate for use for transportation conformity purposes. On February 23, 2017, the EPA announced the availability of the 2016 Ozone Plan and budgets, which were available for a 30-day public comment period that ended on March 27, 2017.⁴⁵ The EPA received no comments from the public. On June 13, 2017, as noted above, the EPA determined the 2018, 2021, 2024, 2027, 2030 and 2031 MVEBs were adequate.⁴⁶ On June 29, 2017, the notice of adequacy was published in the *Federal Register*.⁴⁷ These budgets became effective on July 14, 2017, and have been used in transportation conformity determinations in the San Joaquin Valley area.

In today's notice, the EPA is proposing to approve the 2020, 2023, 2026, 2029 and 2031 budgets in the 2018 SIP Update for transportation conformity purposes. The EPA has determined through its review of the submitted 2018 SIP Update that these budgets are consistent with emission control measures in the SIP, reasonable further progress and attainment for the 2008 ozone NAAQS. For the reasons discussed in section III.B of this proposed rule, we are proposing to approve the RFP demonstration in the 2018 SIP Update. To supplement the information in the

⁴⁴ Under the Transportation Conformity regulations, the EPA may review the adequacy of submitted motor vehicle emission budgets simultaneously with the EPA's approval or disapproval of the submitted implementation plan 40 CFR 93.118(f)(2).

⁴⁵ See <http://www.epa.gov/otaq/stateresources/transconf/currps.htm>.

⁴⁶ See June 13, 2017 letter from Elizabeth J. Adams, Acting Director, Air Division, EPA Region IX, to Richard W. Corey, Executive Officer, CARB.

⁴⁷ See 82 FR 29547.

2018 SIP Update, CARB provided an additional technical supplement⁴⁸ demonstrating that the budgets, including safety margins, which are clearly identified in the tables VIII-4 through VIII-10 of the 2018 SIP Update, are consistent with RFP.

The EPA has previously proposed to approve the attainment demonstration in 2016 Ozone Plan and associated 2031 budgets.⁴⁹ The 2018 SIP Update does not update the attainment demonstration, therefore CARB provided an additional technical supplement⁵⁰ to assess the effect of the emissions updates in the 2018 SIP Update using modeling from the 2016 Ozone Plan. The supplement showed that the updated on-road emission and safety margins, when considered together with all other emission sources, are consistent with applicable requirements for attainment. A detailed discussion of the EPA's analysis of CARB's technical supplement is provided in section III of the TSD accompanying this rulemaking.

The 2018 SIP Update budgets as shown in table 5, are consistent with the RFP demonstration and attainment demonstration, are clearly identified and precisely quantified, and meet all other applicable statutory and regulatory requirements, including the adequacy criteria in 40 CFR 93.118(e)(4) and (5). For these reasons, the EPA proposes to approve the budgets in table 5. We provide a more detailed discussion in section III of the EPA's TSD, which can be found in the docket for today's action. If we finalize approval of the budgets in the 2018 SIP Update, as proposed, then they will replace the budgets from the 2016 Ozone Plan that we previously found adequate for use in conformity determinations by transportation agencies in the San Joaquin Valley.

⁴⁸ See email from Sylvia Vanderspek, Chief, California Air Resources Board Air Planning Branch, to Anita Lee, Chief, EPA Region IX Air Planning Office, October 17, 2018.

⁴⁹ See 83 FR 44528 (August 31, 2018).

⁵⁰ See email from Sylvia Vanderspek, Chief, California Air Resources Board Air Planning Branch, to Anita Lee, Chief, EPA Region IX Air Planning Office, October 19, 2018.

D. Contingency Measures for Failure to Meet RFP Milestones or to Attain the NAAQS by the Applicable Attainment Date

1. Statutory and Regulatory Requirements

Under the CAA, ozone nonattainment areas classified under subpart 2 as Serious or above must include in their SIPs contingency measures consistent with sections 172(c)(9) and 182(c)(9). Contingency measures are additional controls or measures to be implemented in the event the area fails to make RFP or to attain the NAAQS by the attainment date. The SIP should contain trigger mechanisms for the contingency measures, specify a schedule for implementation, and indicate that the measure will be implemented without significant further action by the state or the EPA.⁵¹

Neither the CAA nor the EPA's implementing regulations establish a specific amount of emissions reductions that implementation of contingency measures must achieve, but the 2008 Ozone SRR reiterates the EPA's guidance recommendation that contingency measures should provide for emissions reductions approximately equivalent to one year's worth of RFP, thus amounting to reductions of 3 percent of the baseline emissions inventory for the nonattainment area.⁵²

It has been the EPA's longstanding interpretation of section 172(c)(9) that states may rely on existing federal measures (e.g., federal mobile source measures based on the incremental turnover of the motor vehicle fleet each year) and state or local measures in the SIP already scheduled for implementation that provide emissions reductions in excess of those needed to meet any other nonattainment plan requirements, such as meeting RACM/RACT, RFP or expeditious attainment requirements. The key is that the statute requires that contingency

⁵¹ See 70 FR 71612 (November 29, 2005). See also 2008 Ozone SRR, 80 FR 12264 at 12285 (March 6, 2015).

⁵² 80 FR 12264 at 12285 (March 6, 2015).

measures provide for additional emissions reductions that are not relied on for RFP or attainment and that are not included in the RFP or attainment demonstrations as meeting part or all of the contingency measure requirements. The purpose of contingency measures is to provide continued emissions reductions while the state revises the SIP to meet the missed milestone or attainment date.

The EPA has approved numerous nonattainment area plan SIP submissions under this interpretation, i.e., SIPs that use as contingency measures one or more federal or state control measures that are already in place and provide reductions that are in excess of the reductions required to meet other requirements or relied upon in the modeled attainment demonstration,⁵³ and there is case law supporting the EPA's interpretation in this regard.⁵⁴ However, in *Bahr v. EPA*, the Ninth Circuit rejected the EPA's interpretation of CAA section 172(c)(9) as allowing for approval of already implemented control measures as contingency measures.⁵⁵ The Ninth Circuit concluded that contingency measures must be measures that would take effect at the time the area fails to make RFP or to attain by the applicable attainment date, not before.⁵⁶ Thus, within the geographic jurisdiction of the Ninth Circuit, states cannot rely on already implemented control measures to comply with the contingency measure requirements under CAA sections 172(c)(9) and 182(c)(9).⁵⁷

⁵³ See, e.g., 62 FR 15844 (April 3, 1997) (direct final rule approving an Indiana ozone SIP revision); 62 FR 66279 (December 18, 1997) (final rule approving an Illinois ozone SIP revision); 66 FR 30811 (June 8, 2001) (direct final rule approving a Rhode Island ozone SIP revision); 66 FR 586 (January 3, 2001) (final rule approving District of Columbia, Maryland, and Virginia ozone SIP revisions); and 66 FR 634 (January 3, 2001) (final rule approving a Connecticut ozone SIP revision).

⁵⁴ See, e.g., *LEAN v. EPA*, 382 F.3d 575 (5th Cir. 2004) (upholding contingency measures that were previously required and implemented where they were in excess of the attainment demonstration and RFP SIP).

⁵⁵ *Bahr v. EPA*, 836 F.3d 1218, at 1235-1237 (9th Cir. 2016).

⁵⁶ *Id.* at 1235-1237.

⁵⁷ The *Bahr v. EPA* decision involved a challenge to an EPA approval of contingency measures under the general nonattainment area plan provisions for contingency measures in CAA section 172(c)(9), but, given the similarity

2. Summary of the State's Submission

The District and CARB adopted the 2016 Ozone Plan prior to the *Bahr v. EPA* decision, and it relies upon surplus emissions reductions from already implemented control measures in the RFP milestone years to demonstrate compliance with the RFP milestone contingency measure requirements of CAA sections 172(c)(9) and 182(c)(9).⁵⁸ With respect to the attainment contingency measure requirements, the 2016 Ozone Plan relies upon the incremental reduction in emissions in the year following the attainment year relative to the emissions in the attainment year due to continuing benefits from already implemented control measures, and on the aggregate emission reduction commitment made by CARB in the 2016 State Strategy for San Joaquin Valley.⁵⁹

In the 2018 SIP Update, CARB revises the RFP demonstration for the 2008 ozone standards for the San Joaquin Valley nonattainment area and recalculates the extent of surplus emission reductions (i.e., surplus to meeting the RFP milestone requirement for a given milestone year) in the milestone years, and updates the estimate of the incremental reduction in emissions in the year following the attainment year (relative to the attainment year). In light of the *Bahr v. EPA* decision, however, the 2018 SIP Update does not identify such surplus or incremental emissions reductions as contingency measures. Instead, the 2018 SIP Update

between the statutory language in section 172(c)(9) and the ozone-specific contingency measure provision in section 182(c)(9), we find that the decision affects how both sections of the Act must be interpreted.

⁵⁸ See the 2016 Ozone Plan, chapter 6, section 6.3.

⁵⁹ See the 2016 Ozone Plan, chapter 6, section 6.4 and CARB's Staff Report, ARB Review of the San Joaquin Valley 2016 Plan for the 2008 8-Hour Ozone Standard, release date June 17, 2016, pages 21 and 22. CARB's aggregate commitment is to achieve emission reductions in the San Joaquin Valley of 8 tpd of NO_x by 2031. In our August 31, 2018 proposed action on portions of the 2016 Ozone Plan (83 FR 44528, at 44547), we proposed to approve the aggregate 8-tpd NO_x commitment by CARB from the 2016 State Strategy as a SIP strengthening measure.

includes a contingency measure that would take effect upon a failure to meet an RFP milestone or upon a failure to attain the 2008 ozone standards by the applicable attainment date.

The new contingency measure, referred to as the “Enhanced Enforcement Activities Program,” is described in chapter X (“Contingency Measures”), section C of the 2018 SIP Update. In short, under the Enhanced Enforcement Activities Program, within 60 days of a determination by the EPA that the San Joaquin Valley nonattainment area failed to meet an RFP milestone or to attain the 2008 ozone NAAQS by the applicable attainment date, the CARB Executive Officer would direct enhanced enforcement activities in San Joaquin Valley consistent with the findings and recommendations in a report (referred to as the Enhanced Enforcement Report) that is to be prepared and published within 60 days of the triggering event. In the 2018 SIP Update, CARB indicates that the Enhanced Enforcement Report will, among other things, describe the compliance status of stationary and mobile sources in the area, determine the probable cause of the failure of RFP or attainment, and specify the type and quantity of additional enforcement resources that will be directed to the area. Lastly, through its resolution of adoption of the 2018 SIP Update, CARB added a menu of specific enforcement activity measures, one or more of which must be identified in the Enhanced Enforcement Report and implemented within 60 days of a triggering event.⁶⁰

In chapter X (“Contingency Measures”) of the 2018 SIP Update, CARB indicates that compliance with the contingency measure requirements of the CAA necessitates that individual air districts adopt a local contingency measure or measures to complement CARB’s Enhanced Enforcement Activities Program measure. To address the contingency measure requirement for the 2008 ozone standards in the San Joaquin Valley nonattainment area, the District has

⁶⁰ CARB Resolution 18-50, dated October 25, 2018, attachment B.

committed to adopt and submit a contingency measure to CARB within 11 months of the EPA's final conditional approval of the contingency measure element of the 2016 Ozone Plan, as supplemented by the relevant portions of the 2018 SIP Update.⁶¹ The District's specific commitment is to revise the district's current architectural coatings rule to remove the exemption for architectural coatings sold in containers with a volume of one liter or less if the EPA determines that the San Joaquin Valley nonattainment area has missed an RFP milestone or failed to attain the 2008 ozone NAAQS by the applicable attainment date. The District further commits to submit the revised architectural coatings rule to CARB within 11 months of final EPA action. CARB has attached the District's commitment to revise the architectural coatings rule to a letter committing to adopt and submit the revised rule to the EPA within one year of the EPA's final action on the contingency measure element of the 2016 Ozone Plan (and related portions of the 2018 SIP Update).⁶²

3. The EPA's Review of the State's Submission

We have evaluated the contingency measure provisions in the 2016 Ozone Plan, the 2018 SIP Update, and the commitments by the District and CARB to adopt and submit a district contingency measure within one year of the EPA's final action and have concluded that, collectively, these materials provide the basis for us to propose conditional approval of the 2016 Ozone Plan and the relevant portions of 2018 Update.

First, we find that CARB's Enhanced Enforcement Activities Program measure and the revision to the architectural coatings rule (once adopted) represent additional controls or

⁶¹ Sheraz Gill, Deputy Air Pollution Control Officer, letter to Richard Corey, Executive Officer, CARB and Michael Stoker, Regional Administrator, EPA Region IX, dated October 18, 2018.

⁶² Letter from Dr. Michael Benjamin, Chief, CARB Air Quality Planning and Science Division, to Michael Stoker, Regional EPA Region IX Administrator, dated October 20, 2018.

measures to be implemented in the event San Joaquin Valley fails to make RFP or to attain the NAAQS by the applicable attainment date. We also find that CARB's Enhanced Enforcement Activities Program contains, and the revised architectural coatings rule will contain, triggering mechanisms and schedules for implementation for the additional measures. Furthermore, the contingency measures are designed to be implemented without significant further action by the State or the EPA.⁶³ As such, CARB's Enhanced Enforcement Activities Program measure is structured, and the District's intended measure, as described in the commitment, will be structured, to meet the requirements of CAA sections 172(c)(9) and 182(c)(9) consistent with the *Bahr v. EPA* decision.

As noted above, neither the CAA nor the EPA's implementing regulations for the ozone NAAQS establish a specific amount of emissions reductions that implementation of contingency measures must achieve, but we generally expect that contingency measures should provide for emissions reductions approximately equivalent to one year's worth of RFP, which, for ozone, amounts to reductions of 3 percent of the baseline emissions inventory for the nonattainment area. For the 2008 ozone standards in the San Joaquin Valley nonattainment area, one year's worth of RFP is approximately 11.4 tpd of VOC or NO_x reductions.⁶⁴

The 2018 SIP Update does not include a specific estimate of the emissions reductions that would be achieved by the Enhanced Enforcement Activities program. We recognize the

⁶³ We recognize that CARB's Enhanced Enforcement Activities Program calls for the preparation of a report before specific actions are taken; however, we view the preparation of the report as a ministerial act that does not require significant action on the part of CARB or the EPA, e.g., does not depend upon rulemaking or any action by the CARB Board. Furthermore, in adopting the 2018 SIP Update, the CARB Board strengthened the Enhanced Enforcement Activities Program contingency measure by adopting a menu of specific actions, one or more of which must be included in the report for implementation beginning 60 days after the triggering event. See CARB Resolution 18-50, October 25, 2018, attachment B ("Menu of Enhanced Enforcement Actions").

⁶⁴ The 2011 baseline for VOC and NO_x is 378.7 tpd and 375.6 tpd, respectively, as shown in table VIII-1 of the 2018 SIP Update. Three percent of the baselines is 11.4 tpd of VOC and 11.3 tpd of NO_x, respectively.

difficulty in calculating such an estimate given the nature of the measure and the range of enforcement actions that could be taken, but we believe that the enhanced enforcement program would achieve emissions reductions above and beyond those that would otherwise be achieved. The District's intended contingency measure, i.e., the removal of the small-container exemption from the current local architectural coatings rule in the SIP upon a triggering event, lends itself more easily to quantification of potential additional emission reductions. Based on emissions estimates developed in connection with the removal of the same small-container exemption from the comparable South Coast Air Quality Management District's architectural coatings rule, we estimate that the removal of the exemption would achieve roughly 1 tpd reduction of VOC in San Joaquin Valley.⁶⁵

Considered together, as described above, the two contingency measures can be quantified to achieve approximately 1 tpd of VOC emissions reductions. Thus the contingency measures, considered in isolation, can be quantified to achieve far less than one year's worth of RFP (11.4 tpd of VOC or NO_x). However, the 2018 SIP Update presents the contingency measures within the larger SIP planning context and concludes that the emissions reductions from the two contingency measures are sufficient to meet CAA contingency measure requirements when considered in conjunction with the surplus emissions reductions estimated to be achieved in the RFP milestone years and the incremental emissions reductions projected to occur in the year following the attainment year. Although these surplus emission reductions and incremental emissions reductions result from existing (i.e., already implemented) measures that are not appropriate as contingency measures under the *Bahr v. EPA* court's interpretation of CAA section 172(c)(9), they nonetheless provide additional emission reductions that will improve the

⁶⁵ The basis for this estimate is detailed in section II of the TSD accompanying this rulemaking.

ambient ozone levels in the San Joaquin Valley 2008 ozone nonattainment area in the event that RFP or attainment are not met.

In this case, “surplus” refers to emissions reductions over and above the reductions necessary to demonstrate RFP in San Joaquin Valley for the 2008 ozone standards. More specifically, table VIII-2 in the 2018 SIP Update identifies surplus NO_x reductions in the various RFP milestone years. For San Joaquin Valley, the estimates of surplus NO_x reductions vary for each RFP milestone year but range from 92.4 tpd (24.6 percent of 2011 baseline NO_x) in milestone year 2031 to 157.4 tpd (41.9 percent of 2011 baseline NO_x) in milestone year 2023. These represent values that far eclipse one year’s worth of RFP (11.4 tpd). The surplus reflects already implemented regulations and is primarily the result of vehicle turnover, which refers to the ongoing replacement by individuals, companies, and government agencies of older, more polluting vehicles and engines with newer vehicles and engines designed to meet more stringent CARB mobile source emission standards. In light of the extent of surplus NO_x emissions reductions in the RFP milestone years, we agree with CARB that the emissions reductions from the two contingency measures would be sufficient to meet the contingency measure requirements of the CAA with respect to RFP milestones, even though the measures would achieve emissions reductions lower than the EPA normally recommends for reductions from such measures.

For attainment contingency measure purposes, we view the emissions reductions from the two contingency measures in the context of the expected reduction in emissions within the San Joaquin Valley nonattainment area for the 2008 ozone NAAQS in the year following the attainment year (relative to those occurring in the attainment year). Based on the emission inventories in the Appendix A to the 2018 SIP Update, we note that overall regional emissions

are expected to be approximately 1 tpd of NO_x lower in 2032 than in 2031.⁶⁶ Considered together with the quantified 1 tpd reduction from the contingency measures, the adopted regulations would not provide sufficient emissions reductions to constitute one year's worth of RFP. However, as part of the 2016 State Strategy, CARB has made an aggregate emission reduction commitment of 8 tpd of NO_x for San Joaquin Valley by 2031 over and above the reductions that are needed for any other CAA purpose with respect to the 2008 ozone standards. Fulfillment of the 8-tpd commitment would reduce the potential for the area to fail to attain the 2008 ozone NAAQS by the 2031 applicable attainment date. Under these circumstances, given the reduced potential for failure to attain and the expected year-over-year net reduction in regional emissions, we find that the emissions reductions from the two contingency measures are sufficient to meet the contingency measure requirements of the CAA with respect to attainment.

For the above reasons, we propose to conditionally approve the contingency measure element of the 2016 Ozone Plan, as modified by the 2018 SIP Update, and supplemented by the commitments by the District and CARB to adopt and submit an additional contingency measure, as meeting the contingency measure requirements of CAA sections 172(c)(9) and 182(c)(9). Our proposed approval is conditional because it relies upon a commitment to adopt a specific enforceable contingency measure. Conditional approvals are authorized under CAA section 110(k)(4) of the CAA.

⁶⁶ A comparison of regional emissions totals in 2032 with those in 2031 shows that VOC emissions are expected to be 1.05 tpd higher, and NO_x emissions are expected to be 2.14 lower, for a net reduction of approximately 1 tpd of NO_x.

V. Proposed Action

For the reasons discussed above, under CAA section 110(k)(3), the EPA is proposing to approve as a revision to the California SIP the following portions of the San Joaquin Valley 2016 Ozone Plan⁶⁷ submitted by CARB on August 24, 2016:

- Base year emissions inventory as meeting the requirements of CAA sections 172(c)(3) and 182(a)(1) and 40 CFR 51.1115.

The EPA is also proposing to approve as a revision to the California SIP the following portions of the 2018 SIP Update to the California State Implementation Plan, adopted by CARB on October 25, 2018:

- RFP demonstration as meeting the requirements of CAA sections 172(c)(2), 182(b)(1), and 182(c)(2)(B), and 40 CFR 51.1110(a)(2)(ii); and
- Motor vehicle emissions budgets for the RFP milestone years of 2020, 2023, 2026, 2029, and the attainment year of 2031 (see table 5, above) because they are consistent with the RFP demonstration proposed for approval herein and the attainment demonstration previously proposed for approval and meet the other criteria in 40 CFR 93.118(e).

Lastly, we are proposing to conditionally approve the contingency measure element of the 2016 Ozone Plan, as modified by the 2018 SIP Update, as meeting the requirements of CAA sections 172(c)(9) and 182(c)(9) based on commitments by CARB and the District to supplement the element through submission of a SIP revision within 1 year of final conditional approval action that will include a revised District architectural coatings rule.

⁶⁷ As noted previously, the EPA has already approved the portions of the 2016 Ozone Plan (section 3.4 (“Reasonably Available Control Technology (RACT) Demonstration”) and Appendix C (“Stationary and Area Source Control Strategy Evaluations”)) that relate to the RACT requirements under CAA section 182(b)(2) and 40 CFR 51.1112.

The EPA is soliciting public comments on the proposed actions listed above, our rationales for the proposed actions, and any other pertinent matters related to the issues discussed in this document. We will accept comments from the public on this proposal for the next 30 days and will consider comments before taking final action.

VI. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely proposes to approve state plans and an air district rule as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law

104-4);

- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address disproportionate human health or environmental effects with practical, appropriate, and legally permissible methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: November 19, 2018.

Deborah Jordan
Acting Regional Administrator,
Region IX.

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